

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Title V, Construction / Operating

Permit: V-08-029

Jim Beam Brands Clermont Distillery

526 Happy Hollow Road

Clermont, KY 40110

March 20, 2009

Chris Walling, Reviewer

SOURCE ID: 21-029-00005

AGENCY INTEREST: 450

ACTIVITY: APE20080001

SOURCE DESCRIPTION:

On June 18, 2008 the Jim Beam Brands Company, Clermont distillery applied to the Division for a construction and renewal operating permit for a bourbon distillery in Clermont, Kentucky. The Clermont facility makes distilled spirits. Grain is unloaded and conveyed to hammermills where it is ground. The grain is fed into mash cookers along with water, and the grain starches are converted to sugars by heating. The cooked grain / water mixture is fed into fermenter vessels as a batch operation to convert the sugars to ethanol. After an appropriate residence time, the mixture is processed through distillation columns and condensers. The condensed liquid is fed to spirits tanks and then gauged at the cistern tanks prior to barrel filling. The spent stillage is then dried with a ring dryer and put into a storage room. Whiskey from the cistern tanks is put into barrels until the appropriate age is reached. The barrels are then gravity dumped, rolled, and rinsed at the dumping station. After dumping, the whiskey is fed to the regauge tanks, where it may be processed and sent to be loaded for shipment.

The source is adding two 37,500 gallon process tanks to the facility, which will not increase the total capacity. The source is also replacing the existing ash removal system for the coal-fired boiler with a new pneumatic system.

Until the HCl removal efficiency from the Clermont facility can be verified through testing, the facility will cap its coal usage to 15,000 tons per year (tpy). Using an EPA emission factor of 1.2 lb HCl/ton, this will limit facility HCl emissions to 9 tpy. Following the completion of the testing event (completion of equipment installation and testing is expected in the spring or summer of 2009), an algorithm will be developed that expresses HCl emissions as a function of lime addition and coal feed rates. After this algorithm is developed Jim Beam Brands will submit a permit modification application requesting that this algorithm serve as the mechanism by which to demonstrate that future facility HCl emissions stay below the major source threshold for HAP emissions.

The Division concurs that Jim Beam Brands may use the emission factors from the most current AP-42 for the hydrogen chloride emissions until new information is gathered from the compliance test that shall be performed within six months from issue of the final permit. Control efficiencies and emission factors derived from compliance testing are to replace the emission factor currently listed in the permit, and shall be used to calculate future emissions.

U.S. EPA REVIEW:

The U.S. EPA was notified of the issuance of the proposed permit on February 3, 2009 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.